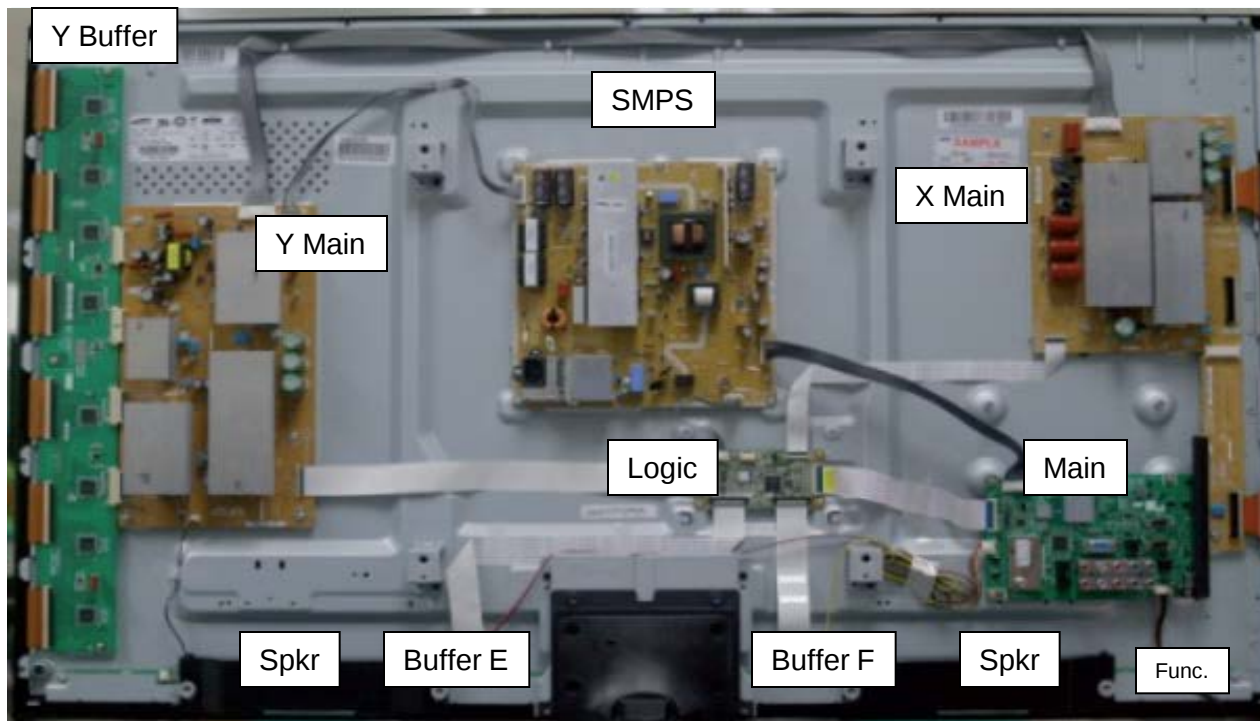


**Service Bulletins:**

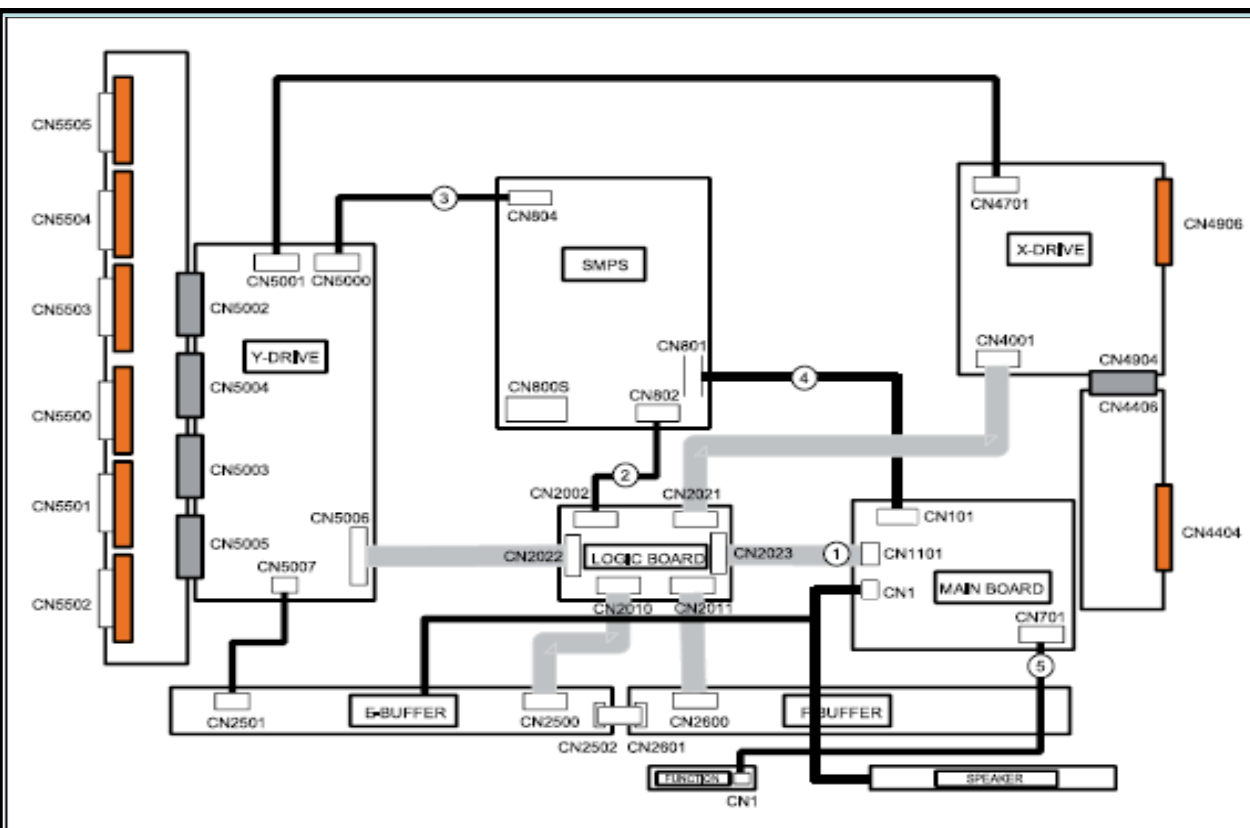
None – As of 3/31/12.

Quick Parts List:

Version	Parts No	Short Description
ALL	BN44-00443A	SMPS
ALL	BN94-04777A	Main PCB
N102	BN96-16513A	Logic Main PCB
N101	BN96-16513A	Logic Main PCB
ALL	BN96-16514A	Buffer E
ALL	BN96-16515A	Buffer F
ALL	BN96-16516A	X Main
N102	BN96-16517A	Y Main
N101	BN96-16517A	Y Main
ALL	BN96-16518A	Buffer X
N102	BN96-16519A	Y Main Scan
N101	BN96-16519A	Y Main Scan
ALL	BN96-16730B	Function & IR PCB
N101	BN96-19472A	Main PCB
N102	BN96-19472A	Main PCB
N410	BN96-20511A	Y Main
N410	BN96-20512A	Buffer Y
N410	BN96-20513A	Logic Main PCB
N101	BN96-16471A	Panel
N102	BN96-17357A	Panel
N410	BN96-20477A	Panel
ALL	BN96-16783A	Rear Cover
ALL	BN96-16786A	Stand Guide
N101	BN96-16789A	Stand Base
N102	BN96-16789A	Stand Base
ALL	BN96-16789C	Stand Base
ALL	BN96-17870P	Front Cover
ALL	3903-000552	Power Cord
N101	BN40-00140B	Tuner
N102	BN40-00140B	Tuner
ALL	BN96-13325F	LVDS Cable

HELP: 1-888-751-4086 (Tech Support)**GSPN**
http://service.samsungportal.com/EP/web/portal/jsp/EP_Default1.jsp
PLUS ONE
<http://my.plus1solutions.net/clientPortals/samsung>
HOT TIPS**-Power On Problems:** (pg. 3)**-Video Problems:** (pg. 4)**Latest Firmware:**

None – As of 3/31/12



Power On Sequence:

1. STBY 5V (CN801, #2, 5v)
2. PS_ON (CN801, #1, 3.3v-0v)
3. VS_ON (CN802, #6, 0-3.3v)
4. Panel should illuminate briefly

(5)
CN710 (MAIN) - FUNCTION

Pin No.	Signal
1	IR
2	GND
3	A3.3V
4	SCL
5	SDA
6	KEY_INPUT1
7	KEY_INPUT2
8	LED_STB

(2)
51" only
CN802 (SMPS) - CN2002 (LOGIC)

Pin No.	Signal
1	D5.3V
2	D5.3V
3	GND
4	GND
5	PS_ON
6	VS_ON

(3)
CN804 (SMPS) - CN5000 (Y-BOARD)

Pin No.	Signal
1	V _s
2	V _s
3	GND
4	V _g
5	GND
6	V _a

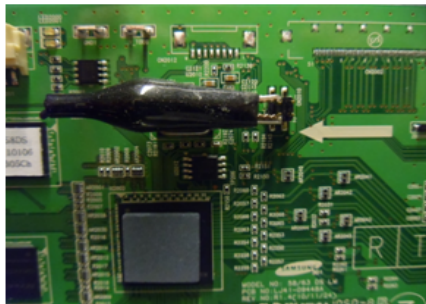
(4)
CN801 (SMPS) - CN101 (MAIN)

Pin No.	Signal
1	PS_ON
2	STBY
3	GND
4	VAMP
5	GND
6	GND
7	D5.3V
8	D5.3V
9	GND
10	15V
11	15V
12	D5.3V

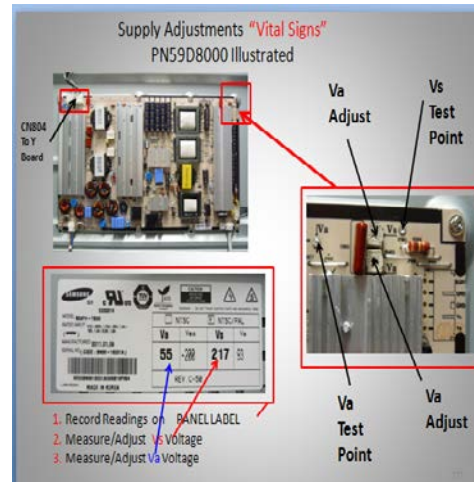
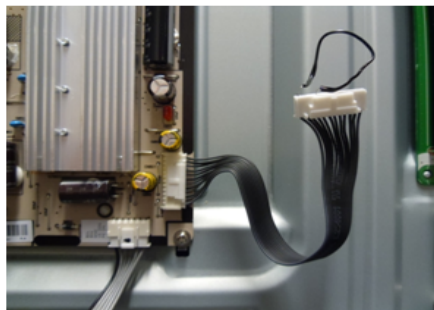
“Troubleshooting”

Activating Power & Logic Board Test Patterns without Main Board:

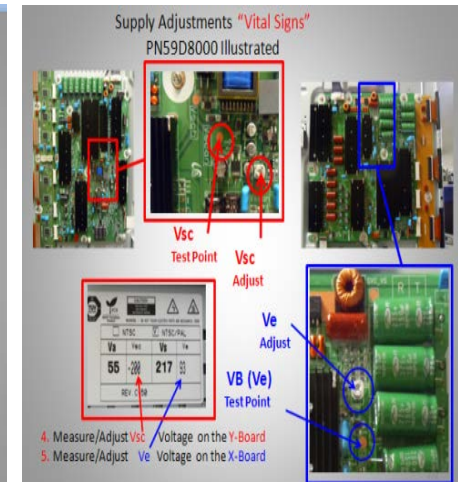
1. Remove Power Cord to Panel
2. Short Highest 2 Pin #s on Logic Board Test Jig (Can be 4 Pin or 6 Pin)



3. Remove Power Connector at Main Board (keeping connection to SMPS)
4. Short “Power On” Pin to Circuit Ground on Power Connector to SMPS.
5. Connect Power Cord to Panel



Sample



Power Supply Trouble Shooting Notes:

2010/2011 models

Will not be run with the “X” or “Y” main disconnected. The SMPS will shut down immediately. However if a meter is first connected to the test point when power is applied it will read the correct voltage briefly before shutting down. (You have enough time to check key voltages)

CAUTION: Do not reconnect any connectors to SMPS or Y/X Boards until power has been turned off long enough for Vs to drop below 10V or damage will occur to X or Y Boards.

SMPS Over Current Protection

If a short circuit occurs on either the VS or VA voltage lines, the SMPS stops operating, but should not fail. When the short circuit is removed from the source line, the Power Supply will operate normally again.

Many SMPS Supplies are replaced needlessly!

“VITAL SIGNS”

When troubleshooting, It's very important to first check **Vs, Va, Vsc & Ve**. If **Vs** is missing (0V), disconnect power and check for short. Use ohm meter to measure resistance while disconnecting Y-Board & X-Board supply feeds one at a time.

Turn Power On and Test SMPS with shorted connector removed for correct Vs voltage verification. (It may only come up briefly but to full level). Be careful not to reconnect power connectors until Vs falls below 10V.

If **Va** is low or missing, disconnect power connectors to Address Boards and Check to see if SMPS Supply is restored. (Note Va feed normally passes through the Y-Drive to the Address Boards (Logic Buffer Boards). If **Vsc** is low or missing and Vs is OK, the failure is with the **Y-Board** since the Y-Board generates the Vsc voltage from the supplied Vs.

If **Ve** is low or missing and Vs is OK, the failure is with the **X-Board** since the Ve is generated by the X-Board from the supplied Vs. (Please note: In some rare cases the Ve is generated by the Y-Board fed to the X-Board.)

Other SMPS Voltages:

Check Low Voltage feeds to the Main Board and other supplied Assemblies.

TROUBLESHOOTING VIDEO PROBLEMS

1. Verify Video Operation

- Customer Picture Test** (if available)
- "Display"** (If display is OK source is suspected)
- Substitute with known good Source
(**external DVD or Signal Generator**)

2. Using Test Patterns in Service Mode

- ENTERING SERVICE MODE -

Customer Remote:

- Power off
- Mute, 182, Power

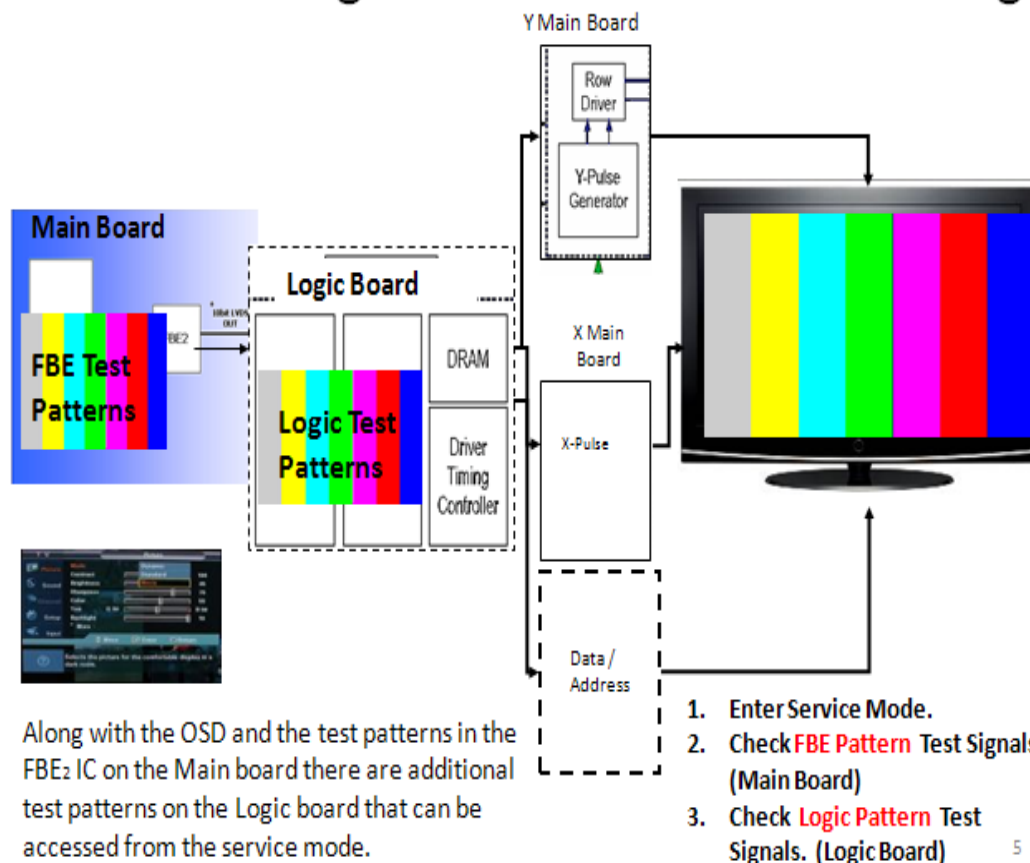
Service Remote:

- Power On
- Info, Test

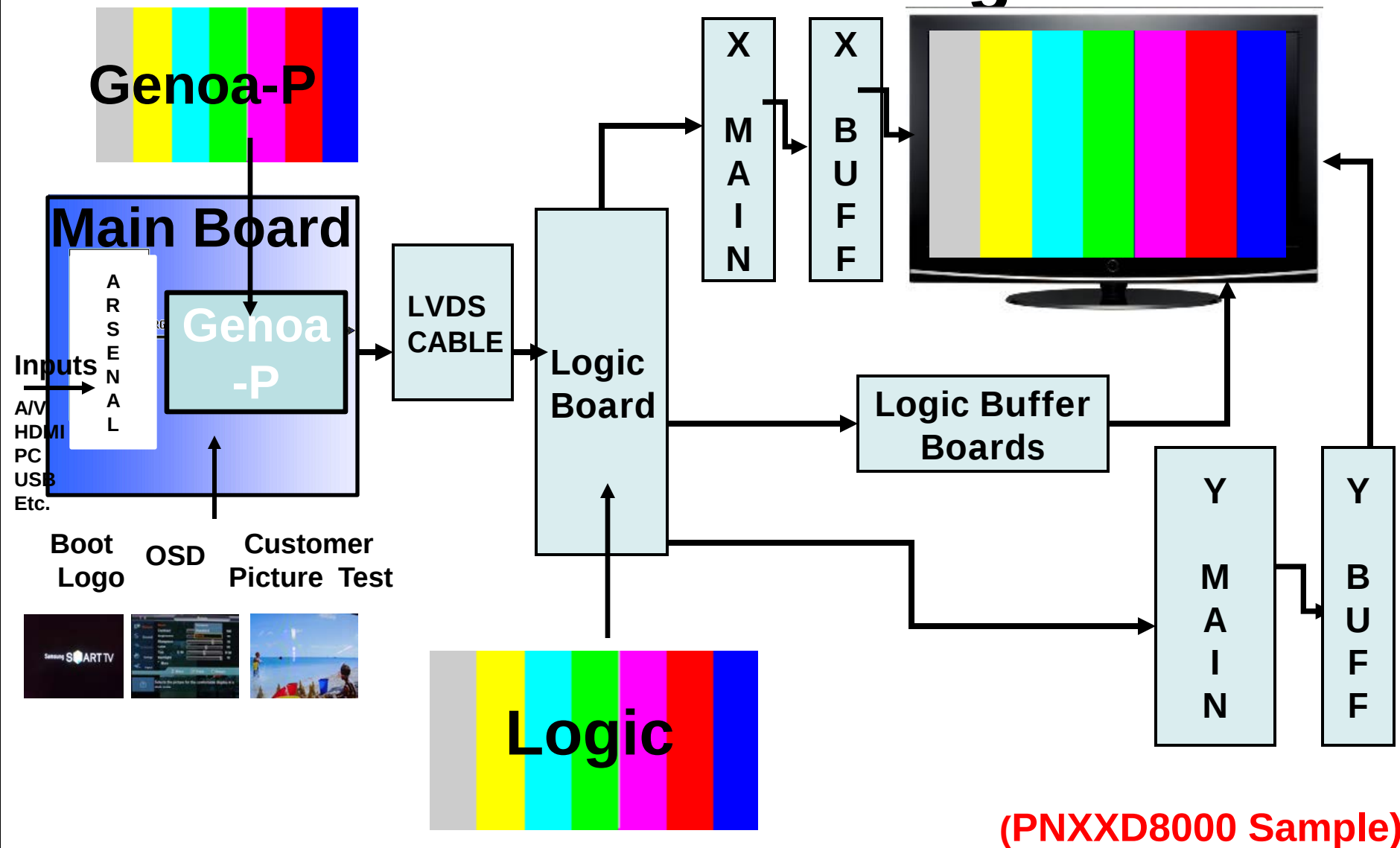
3. Determine cause

- If Logic pattern is NG; Logic board, Logic buffers or Panel are suspect.
- If FBE patterns is NG and Logic is OK; Main or LVDS cable are suspect.
- If both are OK it is likely a source issue.

2010 PDP Signal Path for Troubleshooting



2011 PDP Signal Path for Troubleshooting



(PNXXD8000 Sample)

ALIGNMENTS & OPTION BYTES :

1. Check/Adj. VS, VA, VE, & VSC according to Panel Label and Diffusion test. (see **bulletins** for any special notes before making changes)
2. Check/Set Option Bytes:
 - ENTER SERVICE MODE -
 - a) Customer Remote: Power off; Mute, 182, Power On
 - b) Service Remote: Power On; Info, Test

DIFFUSION TEST/ADJ. (cell miss-firing, older units)

- Allow the unit to warm up 15 to 20 minutes
- Access the Burn Protect Sig. Pattern in Cust. Menu.
- Adjust the Vs volts until screen errors are gone in both dark and bright areas.
- Adjust the Vs volts within +/- 10V on the panel label.

Model Code	Side Label	Option					
		Type	Model	Tuner	Audio AMP	Front Color	Exhibition Mode
PN51D440A5 DXZA	N101	51DHHcD	PD440	ALPS	TAS5715	P-S-C-BK	OFF
	N102	51DHHcD	PD440	ALPS	TAS5715	P-S-C-BK	OFF
	A103	51DHHcD	PD440	ALPS	TAS5715	P-S-C-BK	OFF
	B104	51DHHcD	PD440	ALPS	TAS5715	P-S-C-BK	OFF
	I105	51DHHcD	PD440	ALPS	TAS5715	P-S-C-BK	OFF
	I406	51DHHcD	PD440	ALPS	TAS5715	P-S-C-BK	OFF
	I407	51DHHcD	PD440	ALPS	TAS5715	P-S-C-BK	OFF
	I108	51DHHcD	PD440	ALPS	TAS5715	P-S-C-BK	OFF



SPECIAL NOTES:

See bulletin "Red Dots" for correction/adjustments for this model.